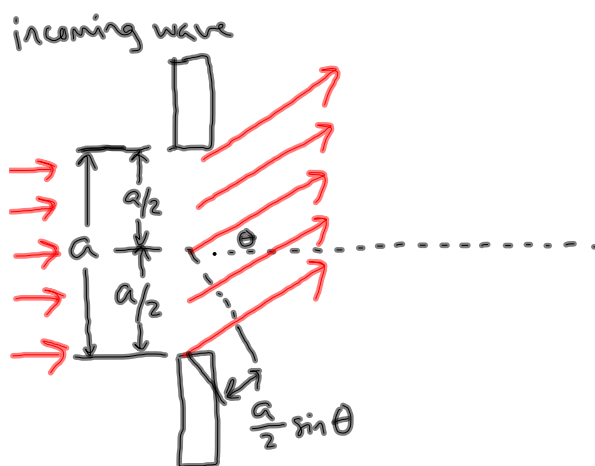
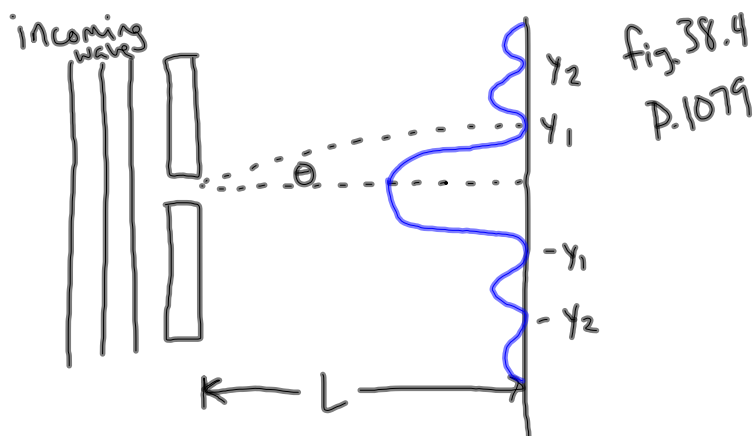


Single-Slit Interference:



Destructive interference \rightarrow occurs when path difference is half wavelength

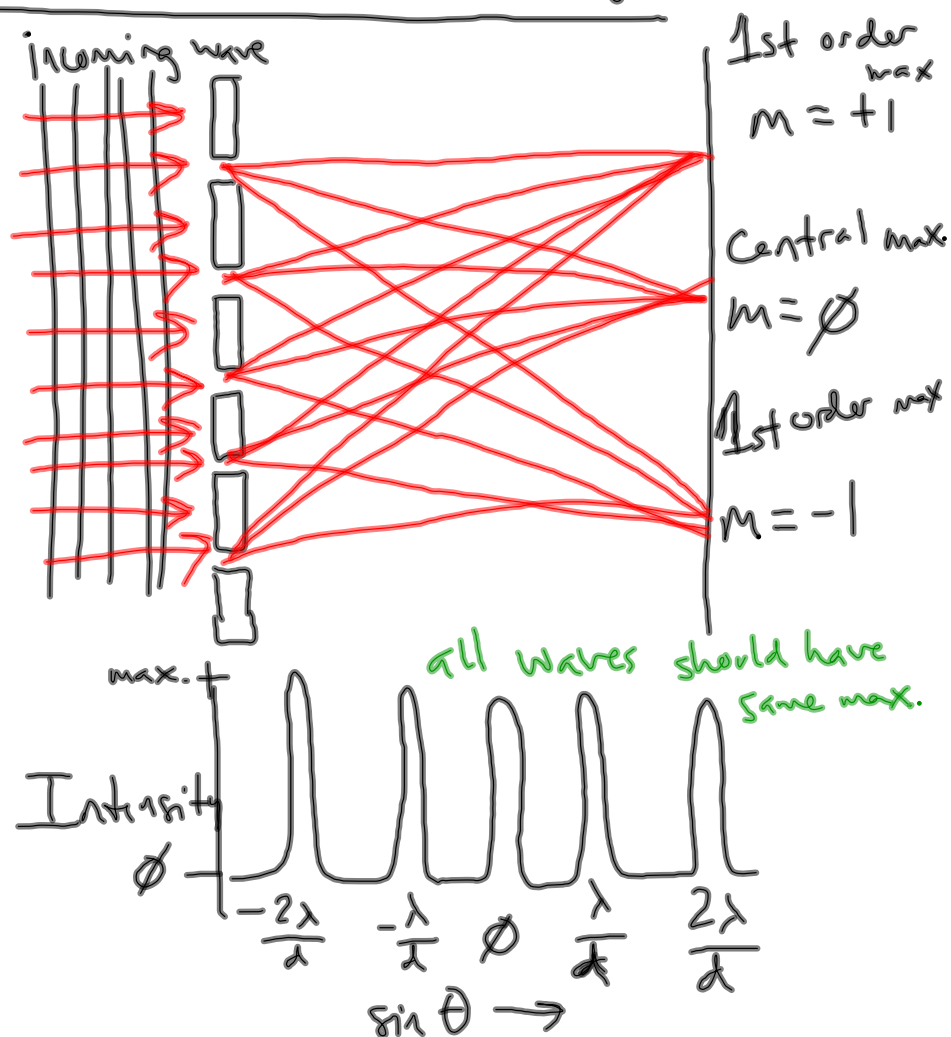
$$\frac{a}{2} \sin \theta = \frac{\lambda}{2}$$

$$\sin \theta = \pm \frac{\lambda}{a}$$

Generally for destructive int.:

$$\sin \theta = \pm \frac{m\lambda}{a} \quad m = \pm 1, \pm 2, \dots$$

Diffraction Grating:



$$d \sin \theta_{\text{bright}} = m \lambda \quad m = 0, \pm 1, \dots$$

